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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/528,662

03/22/2005

Mark Adrian Vencent Chapman

123280

7126

25944

7590

03/20/2007

OLIFF & BERRIDGE, PLC  
P.O. BOX 19928  
ALEXANDRIA, VA 22320

EXAMINER

RICHEY, SCOTT M

ART UNIT

PAPER NUMBER

2877

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

03/20/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/528,662

Applicant(s)

CHAPMAN ET AL.

Examiner

Scott M. Richey

Art Unit

2877

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, <sup>2</sup> WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 3/22/2005.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Regarding claim 4, the term "nominally" renders the claim indefinite because the claim includes elements not actually disclosed, thereby rendering the scope of the claim unascertainable. See MPEP § 2173.05(b).

Where applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine that claim term. *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999). The term "supposition" in claim 8 is used by the claim to mean something repugnant to the ordinary meaning of the word. The accepted meaning is "the act of supposing," an adjective from the verb to suppose, which means, "to lay down tentatively as a hypothesis, assumption, or proposal; to hold as an opinion; to think probable or in keeping with the facts." The term is indefinite because the specification does not clearly redefine the term. The applicant may have intended to use the word -- *superposition*--.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Morimoto et al. (US 4,850,686) (Morimoto).**

Morimoto discloses a laser system comprising:

(Claim 1) a laser source for generating a laser beam along a path (col.1, ln.12-14; monochromatic ray); and first and second adjustable elements which lie in the beam path (Fig.16, elements 3 and 4); characterized in that, the first and second adjustable elements each have limited rotational motion such that rotation of the first adjustable element causes deviation of a laser beam in one plane and rotation of the second adjustable element causes deviation in a second plane (Fig.11, L<sub>5</sub>, L<sub>7</sub>; Fig.16, L<sub>2</sub>, L<sub>3</sub>), and a laser beam from the laser source is oblique to a required beam direction whereby rotation of the adjustable elements deviates the laser beam enabling alignment of the laser beam to the required beam direction (Fig.17, Fig.18),

(Claim 2) wherein the first and second adjustable elements comprise prisms (col.1, ln.12-14),

(Claim 3) wherein the first and second planes are perpendicular to the required beam direction (Fig.16),

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(Claim 4) wherein the first and second planes are nominally perpendicular to each other (col.3, ln.1-3),

(Claim 5) wherein the first and second adjustable elements are each rotatable through 90° (col.2, ln.58-60; around),

(Claim 6) further comprising at least one mirror provided in the beam path (Fig.11, 73), and

(Claim 7) wherein the mirror is angularly offset to the required beam direction (Fig.11, 73).

**Claims 8-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Hemstreet et al. (US 3,170,982) (Hemstreet).**

Hemstreet discloses an interferometer comprising:

(Claim 8) a laser source for providing a first laser beam along a beam path (Fig.7A, 70; col.16, ln.50, 51); means to provide a second laser beam (73); interference means for providing an interference beam from a superposition of the first and second laser beams (Fig.7A); a detector for detecting the interference beam (col.14, ln.12-36); and first and second adjustable elements which lie in the beam path (77); characterized in that, the first and second adjustable elements each have limited rotational motion such that rotation of the first adjustable element causes deviation of a laser beam in one plane and rotation of the second adjustable element causes deviation in a second plane (Fig.6A, Fig.6B, Fig.6C; Risley prism), and a laser beam from the laser source is oblique to a required beam direction whereby rotation of the adjustable elements

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deviates the laser beam enabling alignment of the laser beam to the required beam direction (col.13, ln.7-16),

(Claim 9) at least one mirror provided in the beam path (73A, 74),

(Claim 10) wherein the mirror is angularly offset to the required beam direction (73A, 74), and

(Claim 11) wherein the first and second adjustable elements comprise prisms (77, Risley prism).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott M. Richey whose telephone number is (571) 270-1296. The examiner can normally be reached on Monday - Thursday, 8:00 - 17:00 EST.

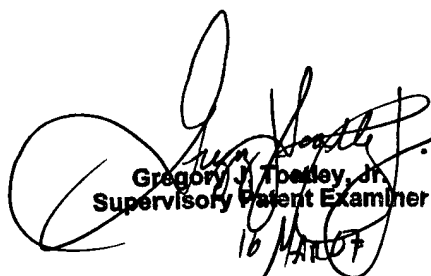
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Toatley can be reached on (571) 272-2059. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Scott M. Richey  
Patent Examiner  
Art Unity 2877



Gregory J. Tobley, Jr.  
Supervisory Patent Examiner  
16 MAR 07